LCAA LAKE CARLOS

PO BOX 311 ALEXANDRIA, MN 56308

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# SUMMER 2021 **PUBLISHED BY THE LAKE ASSOCIATIONS OF CARLOS, DARLING, LE HOMME DIEU, GENEVA, AND VICTORIA**

### **OUR JOINT NEWSLETTER**

Our Chain of Lakes associations have again combined our resources for this third issue of The CHAIN Newsletter. We work together to protect the Chain and with the Douglas County Lake Association (DCLA) offering educational events with the Legacy of the Lakes Museum. Please enjoy this year's Newsletter!

Please return a check in the enclosed envelope or pay by credit card on-line at:

www.lakecarlos.org

Join your neighbors on **LAKE CARLOS** and be a member!

We are stronger together... even on the lake.



# Chain of Jakes

**Douglas County Lakes** Association (DCLA) Report:

DCLA President Steve Henry reports that his organization, representing all of the lake associations in Douglas County, made it through this past year having zoom meetings like many of us. His executive committee and board stayed on top of issues impacting all of us as lake residents. In December, Douglas County Soil and Water Conservation District received a \$687,000 grant for the Ditch 23 Project to revise drainage

pollution into Lake Ida. Lake Ida eventually drains into Lakes Darling and then into Lake Carlos.

The grant requires 25% matching funds and the Douglas County Water Quality Legacy Fund, a 501(c) (3) entity, hopes to receive public and private donations from lake associations, individuals, and others to support this vital effort.

DCLA continues working with all of the lake associations to address and solve many important challenges that confront our lakes.

#### **CONCERN ABOUT SEWER** PLANT "IN-LAKE' DISCHARGE

The Lake Associations remain concerned about our sewer plant's discharge going into Lake Winona and other lakes downstream including Lakes Le Homme Dieu and Carlos. The Alexandria Lakes Area Sanitary District (ALASD) was created to benefit the lakes by providing a central wastewater collection in the Alexandria lakes area. This allowed for the removal of septic systems that caused lake pollution. Unfortunately, the treatment plant discharges into the lakes. As a result, the downstream lakes have high pollution counts. The continued wastewater discharge, and the increased volume of the discharge as our community grows, makes this an ongoing threat to our lakes.

Lakes Le Homme Dieu and Carlos, with support of other lakes on the Chain, will continue to pressure ALASD to consider alternative methods of wastewater discharge so as to avoid in-lake discharge. Upgrades to the existing sewer plant continue to be made but lake pollution continues. The ALASD plant is not in compliance with state and federal environmental requirements.

The sewer plant discharge is a serious concern for our community and in particular for the lakes impacted with the wastewater. Unfortunately, "inlake" discharge was started many years ago and the lake associations will continue to monitor the situation and press ALASD to rethink "in-lake" discharge.

## SALT POLLUTION IN **ALEXANDRIA LAKES**

The identification of salt in our chain of lakes is a concern. There is no good way

to remove it and it threatens the food chain. Salt (chloride) also enters the sewer system and the ALASD treatment plant. There is no good way to remove salt once it has entered into the plant. The focus is now to try to reduce salt before it gets into the treatment plant or the lakes. Reducing the amount of salt used in industry, institutions, homes, and on roads is one way to do this.

A Citizen's Chloride Committee has been established that includes community leaders working to advise the sanitary sewer district on how to handle the chloride problem. Salt and other pollutants are discharged into Lake Winona and the polluted water then enters into Lakes Henry and Agnes. Both show high levels of salt. As we know, these three lakes drain into Lakes Le Homme Dieu and Carlos on the Chain. Water quality testing in both those lakes also show high levels of salt in comparison to other lakes on the Chain. Reducing salt use on sidewalks, roads, and parking areas help address the problem. Water softeners also add salt to the sewer system and homeowners are encouraged to use water softeners with a sensor to reduce the amount of salt used for softening. The reduction in salt pollution, like the reduction of other elements discharged from the ALASD sewer plant, are an ongoing challenge for our community.

#### BRIDGE LIGHTS AND **CHANNEL MARKERS**

LCAA coordinated a bridge lighting project on the Carlos/Darling Bridge. We also worked with the DC water patrol to light the channels at the bridges.

#### Personal Watercraft (PWC) Regulations

• PWCs must operate at closed throttle (no wake speed) when within 150 feet of a dock, shoreline, swimmer, raft, or a non-motorized or anchored water craft or through emergent or floating vegetation.PWC operation is allowed between the hours of 9:30 a.m. and 1 hour before sunset.

 No one under 13 years old may operate a PWC and those under 18 must have a permit or be accompanied by an adult.

#### **Powerboat and Wakeboard Boat** Etiquette

 Stay to the center of a body of water, and avoid narrow channels or thoroughfares, if possible.

• Always stay at least 150' away from shorelines, docks, or fixed objects. Respect the shoreline and leave immediately and graciously if the property

owner requests it. • Avoid "working a shoreline," in which repeated runs bombard the shoreline with waves.

• When possible, present the non-surfing side of the wakeboard boat to the closest shoreline.

Avoid gradual turns close to shore.

#### **Bridge and Channel Etiquette**

• Take turns in the channels – 3 Boats Max Alternating in groups of 3 makes for pleasant travel.

Please be safe and courteous.

#### Paddle Boarding and the Minnesota Law

 There must be a United States Coast Guard approved life jacket, either worn or on board, for each person. • Children younger than 10 years old must wear a properly fitted lifejacket.

• After sunset, you must at least carry a white lantern or flashlight. This light should be strong enough so that other boats can see it at least two miles away. The light must be displayed in time to avoid a collision with another watercraft. Registration is required if your paddleboard is more than 10 feet long. Place the registration decals on the front of the paddleboard if possible. If not, place both decals on the back of the

baddleboard.

#### **Riding on the Front of a Pontoon**

Do not let "dangling legs" hang in the water when the pontoon is moving forward. The potential of being flipped

## LAKE LIFE TIPS

into the water could result in a run-over with tragic results. It is against the law.

#### Minnesota Phosphorus Lawn Fertilizer Law

• This law was enacted to reduce overenrichment of rivers, lakes and wetlands with the nutrient phosphorus. Excessive phosphorus in surface water leads to an overabundance of algae and other aguatic plants.

• Look for the middle number when buying fertilizer. A zero in the middle means phosphorus-free fertilizer.

#### Dim your Bright "White" Security Lights

One of the joys of living on the lake is to be able to walk down to the dock at night and look at the stars. The serenity of lake life can be ruined if you or your neighbor has a bright white security light.

If you have a bright "white" security light, get a shade to reduce light pollution or contact your electrical contractor and get a light that is not "white".

#### Swimmer's Itch Tips

• Swimmer's itch - a condition that leaves red marks on the skin, similar to a mosquito.

• The cause – By the immature life stage of several flat worms, or "flukes" which are parasites from a variety of birds, waterfowl and even muskrats.

• The DNR – reports there are no health concerns other than severe itching.

 Solutions – Avoid swimming or wading in shallow water near shore, towel off immediately, don't swim on days when there is an on-shore breeze

• DNR Solutions – You can obtain a permit to use copper sulfate, which control snails. • Pharmacies – All Alexandria pharmacies sell a swimmer's itch cream.

• Contact DNR.State.MN.US for further information.

#### Landscaping and Beach Work

Contact Douglas County Land and Resource Management at 320-762-3863 to ensure that your project is in compliance with county regulations. In the City of Alexandria 320-763-6678. In Alexandria Township call 320-759-5300. Though major projects may require a conditional use permit, the departments will issue permits for smaller projects.

#### **GENEVA/LE HOMME DIEU CHANNEL PROJECT**

The Lake Geneva Association has worked with our local legislators in an effort to fund a project to remove and replace the existing channel/bridge between Lakes Geneva and Le Homme Dieu making the underpass bigger, safer, and easier for most to navigate. The channel of concern moves under Highway 29 and is small and cramped limiting movement between the two lakes. It is hoped that funding will be made available to complete this project.



#### **GENEVA / LE HOMME DIEU CHANNEL**

In the background is the tunnel passing under Highway 29. In the foreground, a more modern railroad underpass is easy to navigate. Unfortunately, the tunnel under the highway is small and restricts navigation. This tunnel is the subject of the channel project.

#### WALLEYE STOCKING

#### WALLEYE STOCKING ON THE CHAIN OF LAKES - 2020

| LAKE          | FINGERLING COUNT | FINGERLINGS/POUNDS |
|---------------|------------------|--------------------|
| CARLOS        | 12,066           | 600 lbs.           |
| DARLING       | 15,188           | 754 lbs.           |
| GENEVA        | 9,376            | 520 lbs.           |
| LE HOMME DIEU | 21,436           | 1,080 lbs.         |
| VICTORIA      | 4,847            | 262 lbs.           |

#### LAKE CARLOS DAM PROJECT (WE ARE ALL CONNECTED)

There is a dam near the mouth of the Long Prairie River on the north end of Lake Carlos. It controls the water level on Lake Carlos and thus influences the level of all lakes on the Chain and beyond. Most of the lakes in Douglas County end up flowing through Lake Carlos on the way to the Long Prairie River. Its waters eventually join the Mississippi River.

The dam has been in place for many years and is controlled by the DNR. The dam's fixed level is determined to be best suited for our lake system. Since it is a fixed structure, the level has been constant over the years. A problem developed late last season when the Lake Carlos Association discovered that the earth on the west side of the dam had eroded during 2020 creating a by-pass channel. It widened allowing more and more water to wash around



the dam. Left unchecked, this would lower the lake level and potentially cause the dam to fail. During late 2020 the Lake Carlos Association lobbied the DNR to accelerate a project that was contemplated to repair the dam and make it more "fish friendly." By mid-winter, with the breach worsening, immediate repair was necessary. The repair project was completed in April. It was

"funded" by the State of Minnesota. In addition to repairing the erosion, large rocks were added both upstream and downstream from the dam to create a "ladder" to make it easier for fish to spawn down river and return to Lake Carlos.



Spring Work to Replace Failed Dam

New Dam with "fish-ladder" Improvement

#### WATER QUALITY TESTING ON **THE CHAIN**

The Alexandria Lakes Area Sanitary district (ALASD) is testing the lakes on the Chain to help identify issues of concern to all of us. The chart below reports various findings of import including the presence of elements that contribute to weed growth and water clarity (Chlorophyll and Phosphorous), water clarity measurements (SEECHI dish readings), and salt content in the lake water (Chloride). These 2019 and 2020 findings are insightful.

**CHLOROPHYLL – A:** is the pigment that makes plant & algae green & is measured in lakes to determine algal concentration. A high measurement of Chlorophyll-A means that there is a large amount of algae in the lake.

PHOSPHORUS: Generally, the more phosphorus there is in the lake the lower the water quality. Phosphorus is food for plants & algae, so the more phosphorus there is in the lake, the more plants & algae grow. Phosphorus can enter the lake through runoff from agriculture, manure, improperly maintained septic systems, leaf & yard litter, fertilized lawns & erosion.

SEECHI: Water transparency is how deep sunlight penetrates through the water. Transparency depends on the a

"Meso" means middle or mid; therefore, mesotrophic means a medium amount of nutrients (Phosphorus and Nitrogen). Mesotrophic lakes are usually found in central Minnesota and have clear water with some algal blooms in late summer.

**CHLORIDE:** Elevated chloride (salt) levels can cause cells to lose water and become deprived of nutrients, ultimately killing fish, amphibians, plants, and other aquatic organisms.

**MESOTROPHIC:** Fortunately, all five of our lakes on the Chain have good values and are Mesotrophic which means they have a medium amount of nutrients (Phosphorus and Nitrogen) and have clear water with some algal blooms in late summer. Additionally, considered great fishing lakes and are home to many sport fish such as walleye, perch, smallmouth bass, muskellunge and northern pike.

Interestingly, ALASD operates the water treatment plant and is working to monitor and reduce wastewater discharge that contributes to the pollution findings in downstream lakes. The ALASD plant discharges into Lake Winona and from there the water runs into Lakes Agnes and Henry before entering the Chain of Lakes into Lake LeHommeDieu. From there, the water flows into Lake Carlos and then to the Long Prairie River.

| TEST RESULTS    | CHLOROPHYLL | PHOSPHORUS | SEECHI | CHLORIDE |
|-----------------|-------------|------------|--------|----------|
| Carlos –2019    | <1          | 0.013      | 15'    | 36.4     |
| Carlos - 2020   | 1.78        | 0.02       | 17'    | 36.6     |
| Darling -2019   | 5.34        | 0.016      | 15′    | 15.7     |
| Darling - 2020  | 2.67        | 0.018      | 15′    | 19.9     |
| Geneva – 2019   | 10.7        | 0.03       | 8′     | 19.2     |
| Geneva - 2020   | 7.12        | 0.023      | 13'    | 20.9     |
| LHD – 2019      | 7.12        | 0.020      | 12′    | 94.4     |
| LHD - 2020      | 4.45        | 0.027      | 14'    | 82.2     |
| Victoria – 2019 | 10.7        | 0.024      | 8'     | 20.7     |
| Victoria - 2020 | 4.45        | 0.015      | 18′    | 20.3     |

2019/2020 Chain of Lakes Data comparison. Provided by ALASD

### **MILFOIL IN THE CHAIN OF LAKES**

Eurasian water milfoil is perhaps one of the most widely known invasive species in our Minnesota lakes. Milfoil growth not only chokes out native weeds, it is thick and overwhelms waterways causing difficulty for boats and recreational use. Three of our lakes on the Chain including Lakes Le Homme Dieu, Victoria, and Carlos have all identified milfoil. This aquatic invasive species (AIS) first appeared twelve years ago in Lake Le Homme Dieu. The Le Homme Dieu Association has maintained an aggressive treatment program and it has managed to keep on top of the problem eliminating the spread of milfoil.

Lake Victoria has also treated milfoil for the past three years. It was first found in 2017 and lake surveys were completed annually followed by aggressive treatment. In 2020, one small area was treated.

Milfoil was discovered on Lake Carlos in 2019. A lake survey was completed and in 2020 several spots were treated with the same herbicide used in Le Homme Dieu and Victoria. Follow-up lake surveys are scheduled for 2021 on all three lakes to assess and treat any new areas of infestation.

Milfoil is easily spread from lake to lake as usually first found near public access areas. The DNR and Douglas County monitor boats during the high season to assure that there is no milfoil entering the lakes and boats are clean on removal. Minnesota laws strictly prohibit the movement of boats or lifts until they have been thoroughly cleaned of milfoil.

#### LAKE DARLING CURLY-LEAF PONDWEED

The Lake Darling Association addressed an unwanted weed growth issue by hiring RMB Environmental Laboratories to conduct a survey of Lake Darling in the Spring of 2019. Curly-leaf pondweed was the only invasive weed that was found in over five areas. The treatment was recommended and completed. In

the Spring of 2020 a follow-up survey was done with DNR support. Three areas were discovered covering nine acres. Treatment was completed and a follow-up survey is scheduled for 2021. Grants help offset the expense of these treatments.

## THE PROBLEM WITH CARP

Common Carp have been in Minnesota lakes for many years. Our DNR, working with local sportsman clubs, maintain carp traps on almost every river, stream, and channel in the area. In recent years, the traps have not been maintained and carp pollution has exploded.

Why are carp a problem? They are notorious for altering natural ecosystems. They uproot and disturb submerged vegetation while searching for insect larvae to eat. Carp reduce water quality and stir up bottom phosphorus-containing sediments, which contributes to algae blooms.

A report from Wenck Associates, Inc., stated that monitoring activities completed in 2019 verified that carp densities are very high in the Chain of Lakes and are likely degrading water quality and aquatic plant communities. They go on to say "while a better understanding of where carp reproduction occurs is needed, it is clear that the carp population must be reduced and their movement restricted to effectively improve water quality in the lakes." The lake associations will be working with the DNR in an effort to reconsider more aggressive methods of carp elimination and control.

